PE TITLE: National Airspace System

# RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

February 1999

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

7 - Operational System Development

0305137F National Airspace System

4090

|                                     |                   |                     |                     |                     | . ,                 |                     |                     |                     |                     |            |  |  |  |
|-------------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|--|--|--|
| COST (\$ In Thousands)              | FY 1998<br>Actual | FY 1999<br>Estimate | FY 2000<br>Estimate | FY 2001<br>Estimate | FY 2002<br>Estimate | FY 2003<br>Estimate | FY 2004<br>Estimate | FY 2005<br>Estimate | Cost to<br>Complete | Total Cost |  |  |  |
| 4090 National Airspace System (NAS) | 11,635            | 1,780               | 1,756               | 201                 | 203                 | 206                 | 0                   | 0                   | 0                   | 109,635    |  |  |  |
| Quantity of RDT&E Articles          | 2*                | 0                   | 0                   | 0                   | 0                   | 0                   | 0                   | 0                   | 0                   | 0          |  |  |  |

(U) Note: \* Cost of RDT&E articles (\$3.0 Million in FY98) includes two (2) automation subsystems to support developmental/operational testing.

### (U) A. Mission Description:

The DoD National Airspace System program will modernize the DoD Air Traffic Control (ATC) system in parallel with the Federal Aviation Administration (FAA) modernization. DoD will acquire, to the maximum extent practical, systems on contract with the FAA to reduce development costs and prevent duplication. The DoD NAS program provides systems and facilities compatible/interoperable with the FAA modernization, prevents DoD flight delays and cancellations, continues DoD's access into Special Use Airspace (SUA), provides transparent services to military and civil aircraft, replaces aging DoD ATC systems, and increases flight safety. The Military Airspace Management System (MAMS) will effectively schedule and manage SUA. DoD military ATC and fighting/flying readiness will be maintained.

### (U) FY 1998 (\$ in Thousands):

- (U) \$ 4,400 Continue Military Airspace Management System (MAMS) development
- (U) \$ 137 Complete facility/transition planning and continue site surveys
- (U) \$ 455 Continue NAS DoD subsystem analysis for each DoD site
- (U) \$ 2,138 Continue radar acquisition and test
- (U) \$ 4,190 Continue automation acquisition and test
- (U) \$ 315 Complete voice switch acquisition and test
- (U) \$11,635 Total

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| RDT&   | E BUDGET ITEM JUSTIFICATION   | N SHEET (R-2 Exhibit)                                  | February 1999          |
|--|---|--|------------------------|
| BUDGET ACTIVITY 7 - Operational System         | m Development   | PE NUMBER AND TITLE  0305137F National Airspace System | PROJECT <b>4090</b>    |
| (U) \$ 327 Cor<br>(U) \$ 595 Cor               | nands):  Inplete Military Airspace Management System (MAN nplete NAS DoD subsystem analysis for each DoD subsubsubsubsubsubsubsubsubsubsubsubsubs |  |                        |
| (U) \$ 163 Peri                                | ntify interface/interoperability improvements for the form risk reduction studies and software analyses inplete radar/automation test             | NAS projects   |                        |
| – Peri   | ntify interface/interoperability improvements for the form risk reduction studies and software analyses vide on site engineering analyses         | NAS projects   |                        |
| (U) <b>B.</b> This program is in budget active | vity 7 - Operational System Development, because th   | ne DoD Air Traffic Control system is operational.      |                        |
| Project 4090                                   | Pag   | e 2 of 6 Pages Exh                                     | ibit R-2 (PE 0305137F) |

| RDT&E BUDGET IT   | EM JUS                      | TIFICA                     | TION SH           | HEET (R                  | R-2 Exhi                   | bit)              |                   | DATE <b>Fek</b>                 | ruary 199                  | <b>3</b> 9                  |
|---|-----------------------------|----------------------------|-------------------|--------------------------|----------------------------|-------------------|-------------------|---------------------------------|----------------------------|-----------------------------|
| BUDGET ACTIVITY 7 - Operational System Development  |                             |                            |                   | JMBER AND <b>5137F</b> N | TITLE<br>National <i>A</i> | Airspace          | System            |                                 |                            | OJECT<br><b>)90</b>         |
| (U) C. Program Change Summary (\$ in Thousan  | nds)                        |                            |                   |                          |                            |                   |                   |                                 |                            |                             |
| <ul> <li>(U) Previous President's Budget (FY 1999 PB)</li> <li>(U) Appropriated Value</li> <li>(U) Adjustments to Appropriated Value</li> </ul>             |                             | FY 1999<br>11,91<br>12,830 | 7                 | 1999<br>1,881<br>1,881   | FY 2000<br>288             | <u>FY 20</u><br>2 |                   | Total<br><u>Cost</u><br>.09,467 |                            |                             |
| <ul><li>a. Congressional General Reductions</li><li>b SBIR</li><li>c. Omnibus &amp; Other Above Threshold<br/>Reprogramming</li></ul>                       |                             | -68'<br>-22'<br>-8         | 7<br>1            | -101                     |                            |                   |                   |                                 |                            |                             |
| <ul> <li>d. Below Threshold Reprogramming</li> <li>(U) Adjustments to Budget Year Since FY 1999 PE</li> <li>(U) Current Budget Submit/FY 2000 PB</li> </ul> | 3                           | -200<br>11,63              |                   | 1,780                    | 1,468<br>1,756             |                   | -4<br>01 1        | 09,635                          |                            |                             |
| (U) <b>D.</b> Other Program Funding Summary (\$ in 7)  (U) Other Procurement, BA 3  | Thousands)  FY 1998  14,820 | FY 1999<br>14,014          | FY 2000<br>54,394 | FY 2001<br>57,635        | FY 2002<br>61,762          | FY 2003<br>52,670 | FY 2004<br>46,784 | FY 2005<br>47,792               | To<br><u>Compl</u><br>Cont | Total<br><u>Cost</u><br>TBD |
| Weapon system code 833020, PE0305137F  (U) Other Procurement, BA 5  Weapon system code 86190A, PE0305137F,  (Initial Spares)                                | 1,009                       | 1,407                      | 4,802             | 4,993                    | 5,405                      | 4,596             | 4,030             | 4,130                           | Cont                       | TBD                         |
| (U) E. <u>Acquisition Strategy</u> : All major contracts were awarded after full and open revised (22 Apr 98) Acquisition Program Baseline (                |                             |                            |                   |                          |                            |                   |                   | evelopment/te                   | st activities w            | vith the                    |
|   |                             |                            |                   |                          |                            |                   |                   |                                 |                            |                             |

| RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)   |   |                     |                   |        |          |             |                   |   |         | DA          | DATE February 1999 |         |         |                  |                   |   |
|---|---|---------------------|-------------------|--------|----------|-------------|-------------------|---|---------|-------------|--------------------|---------|---------|------------------|-------------------|---|
| BUDGET ACTIVITY 7 - Operational System Development  |   | PE NUMBER AND TITLE |                   |        |          |             |                   |   | PROJECT |             |                    |         |         |                  |                   |   |
| (U) F. Schedule Profile   |   |                     |                   |        |          |             |                   |   |         |             |                    |         |         |                  |                   |   |
|   | 1 | <u>FY</u> 2         | 1 <u>998</u><br>3 | 4      | 1        | <u>FY</u> 2 | 1 <u>999</u><br>3 | 4 | 1       | <u>FY 2</u> | 2 <u>000</u><br>3  | 4       | 1       | <u>FY 2</u><br>2 | 2 <u>001</u><br>3 | 4 |
| <ul> <li>(U) Acquisition Milestones</li> <li>(U) Milestone II (MS II) (Jul 95)</li> <li>(U) Revised Acquisition Program Baseline</li> <li>(U) Amended MS II Acquisition Decision Memo</li> <li>(U) Voice Switch LRIP Decision</li> <li>(U) Voice Switch FRP Decision</li> </ul> |   |                     | X                 | X<br>X |          |             | X                 |   |         |             |                    |         |         |                  |                   |   |
| <ul> <li>(U) Radar &amp; Automation LRIP Decision</li> <li>(U) Radar &amp; Automation Milestone III</li> <li>(U) Contract Milestones</li> <li>(U) Radar</li> </ul>  |   |                     |                   |        |          |             | Α                 |   | X       |             |                    | X       |         |                  |                   |   |
| Contract Award (Aug 96) Complete radar OT&E  (U) Automation Contract Award (Sep 96) Complete automation OT&E  |   |                     |                   |        |          |             |                   |   |         | X<br>X      |                    |         |         |                  |                   |   |
| (U) Voice Switch Contract Award (Jul 95) Complete voice switch OT&E (U) NAS IOC   |   |                     |                   |        |          |             | X                 |   |         |             | X                  |         |         |                  |                   |   |
| (U) NAS FOC Apr 2010<br>(U) MAMS<br>Contract Award (Nov 95)<br>MAMS IOC   |   |                     |                   |        |          | X           |                   |   |         |             |                    |         |         |                  |                   |   |
| * Denotes completed event<br>X Denotes planned event  |   |                     |                   |        |          |             |                   |   |         |             |                    |         |         |                  |                   |   |
| Project 4090  |   |                     |                   | Page 4 | 4 of 6 P | ages        |                   |   |         |             | Ex                 | hibit R | k-2 (PE | 03051            | 137F)             |   |

| RD  | T&E PRO                   | GRAM EI             | LEMENT               | /PROJE            | ст со        | ST BREAK                        | DOWN (R   | -3)        | DATE <b>F</b> | ebruary 1             | 999                    |  |
|---|---------------------------|---------------------|----------------------|-------------------|--------------|---------------------------------|-----------|------------|---------------|-----------------------|------------------------|--|
| BUDGET ACTIVITY 7 - Operation   | al System D               | evelopme            | nt                   |                   |              | NUMBER AND TITL<br>305137F Nati |           | ace System |               |                       | PROJECT<br><b>4090</b> |  |
| (U) A. Project C  |                           |                     |                      |                   |              |                                 |           |            |               |                       |                        |  |
|   |                           |                     |                      | FY                | 1998         |                                 | FY 2000   | FY 2001    |               |                       |                        |  |
| Site Surveys  |                           |                     |                      |                   | 4,400        | 800<br>100                      | 0         | 0          |               |                       |                        |  |
| Facility/Transition   | Planning                  |                     |                      |                   | 37<br>50     | 222                             | 0         | 0          |               |                       |                        |  |
| System Engineering Interoperability/software analyses                 |                           |                     |                      |                   | 0            | 55                              | 58<br>168 | 136        |               |                       |                        |  |
| Program Management Support and Travel Identified as a source for SIBR |                           |                     |                      | ,                 | 6,443        | 495<br>50<br>58                 | 30        | 0          |               |                       |                        |  |
|   |                           |                     |                      | 1                 | 1,635        | 1,780                           |           | 201        |               |                       |                        |  |
| (U) B   |                           |                     |                      |                   |              |                                 |           |            |               |                       |                        |  |
| Performing Organ<br>Contractor or                                     | nizations:                |                     |                      |                   |              |                                 |           |            |               |                       |                        |  |
| Performing Activity   | Method/Type<br>or Funding | Award or Obligation | Performin g Activity | Project<br>Office | Tot<br>Prior |                                 | FY 1999   | FY 2000    |               | Budget to<br>Complete | <u>Program</u>         |  |
| Product Developme   | ent Organization          |                     | 2.500                |                   | 2.50         | 20.                             |           | 0          | 0             |                       | 2.500                  |  |
| Computer Based Systems b.   | CPFF                      | Jun 94              | 3,500<br>12,705      | 12,705            | 3,50         | 4,400                           | 800       | 0          | 0             | 0                     | 3,500                  |  |
| Aircraft c. Raytheon  | CFFF                      | Aug 96              | 18,275               | 12,703            | 17,01        |                                 | 800       | 0          | 0             | U                     | 18,275                 |  |
| (Radar)<br>d. Raytheon  | IDIQ-FFP                  | Sep 96              | , -                  | 5,862             | 2,29         |                                 | 0         | 0          |               | 0                     | 5,297                  |  |
|   | IDIQ-FFP                  | Jul 95              |                      | 2,570             | 2,57         | 70                              | 0         | 0          |               | 0                     | 2,570                  |  |
| Project 4090  |                           |                     |                      |                   | Page 5       | of 6 Pages                      |           | Exhib      | oit R-3 (PE   | 0305137F)             |                        |  |

| RE  | T&E PRO  | GRAM EI                               | LEMENT                         | /PROJEC                   | CT COST I                           | BREAKD                    | OWN (R            | -3)             | DATE <b>F</b>  | ebruary 1                       | 999                       |
|---|--|---------------------------------------|--------------------------------|---------------------------|-------------------------------------|---------------------------|-------------------|-----------------|----------------|---------------------------------|---------------------------|
| BUDGET ACTIVITY 7 - Operation   | al System D                                      |                                       | er and title  37F Natio        | nal Airspa                | n                                   | PROJEC<br><b>4090</b>     |                   |                 |                |                                 |                           |
| Contractor or<br>Government<br>Performing<br>Activity   | Contract<br>Method/Type<br>or Funding<br>Vehicle | Award or<br>Obligation<br><u>Date</u> | Performin<br>g Activity<br>EAC | Project<br>Office<br>EAC  | Total<br>Prior to<br>FY 1998        | Budget<br>FY 1998         | Budget<br>FY 1999 | FY 2000         | FY 2001        | Budget to<br>Complete           | Total<br><u>Program</u>   |
| Support and Mana  | ngement Organiza                                 | ations                                |                                |                           |                                     |                           |                   |                 |                |                                 |                           |
| MITRE<br>Martin Marietta<br>Miscellaneous   | CPAF<br>FFP<br>Multiple                          | Oct 94<br>Sep 94<br>Multiple          | 21,910<br>8,700<br>32,624      | 21,910<br>8,700<br>32,624 | 20,595<br>8,336<br>30,005           | 1,210<br>364<br>1,197     | 0<br>0<br>122     | 0<br>0<br>1,756 | 0<br>0<br>201  | 0<br>0<br>409                   | 21,805<br>8,700<br>33,690 |
| Test and Evaluatio<br>46 <sup>th</sup> Test Wing,<br>Eglin AFB, FL  | on Organization<br>PO                            | Multiple                              | 2,135                          | 2,135                     | 1,235                               | 600                       | 400               | 0               | 0              | 0                               | 2,235                     |
| Government Fur  | nished Property:                                 | None                                  |                                |                           |                                     |                           |                   |                 |                |                                 |                           |
|   |  |                                       |                                |                           | Total<br>Prior to<br><u>FY 1998</u> | Budget<br>FY 1998         | Budget<br>FY 1999 | FY 2000         | <u>FY 2001</u> | Budget to<br>Complete           | Total<br><u>Program</u>   |
| Identified as a source for SIBR Subtotal Product Development Subtotal Support and Management Subtotal Test and Evaluation |  |                                       |                                | 33,683<br>58,936<br>1,235 | 8,264<br>2,771<br>600               | 58<br>1,200<br>122<br>400 | 0<br>1,756<br>0   | 0<br>201<br>0   | 0<br>409<br>0  | 58<br>43,147<br>64,195<br>2,235 |                           |
| Total Project   |  |                                       |                                |                           | 93,854                              | 11,635                    | 1,780             | 1,756           | 201            | 409                             | 109,635                   |
| Project 4090  |  |                                       |                                |                           | Page 6 of 6 Page                    | ages                      |                   | Ex              | hibit R-3 (PE  | 0305137F)                       |                           |